

# Exhibit B

## 20A Definitions

Noise Wall: A wall typically placed around the perimeter of the property constructed of wood, concrete or masonry that is designed to mitigate the impact of noise.

## Noise Standards

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### **010 Purpose.**

- (1) The purpose of this chapter is to:
  - (a) To promotes commerce, the use, value and enjoyment of property, sleep and repose, and the quality of the environment through the level of noise; and
  - (b) Minimize the exposure of citizens to the physiological and psychological dangers of excessive noise and to protect, promote and preserve the public health, safety and general welfare.
- (2) It is also the City's intent to regulate noise as a nuisance or public disturbance in addition to any other means of regulation or enforcement established in this chapter. Regulation of nuisance and public disturbance noises is set forth in Chapter 9.42 RMC.

### **020 Applicability.**

These standards shall apply to all noise generated on lands located within the Redmond City limits.

### **030 Identification of Noise Environments and Maximum Permissible Noise Levels.**

- (1) Environmental Designation for Noise Abatements (EDNA) are established based on consideration of historical, present and future land use of each zoning district.

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- (2) No person shall cause or permit sound to intrude onto the real property of another person that exceeds the maximum permissible sound levels established by this chapter. The point of measurement shall be anywhere within the receiving property.
- (3) Maximum permissible noise levels are given below and are consistent with State requirements (Chapter 70.107 RCW and Chapter 173-60 WAC):

Table 1: Maximum Permissible Noise Levels

EDNA of Noise Source (Land Use Zones)	EDNA of Receiving Property (Land Use Zones)			
	Class A (All R zones & RA-5)		Class B (UR, NC, GC, OV, DT, ODD)	Class C (MP, I, BP, OBAT)
	Daytime 7:00 a.m.–10:00 p.m.	Nighttime 10:00 p.m.–7:00 a.m.		
Class A	55 dBA	45 dBA	57 dBA	60 dBA
Class B	57 dBA	47 dBA	60 dBA	65 dBA
Class C	60 dBA	50 dBA	65 dBA	70 dBA

### Legend

EDNA = Environmental Designation for Noise Abatement

dBA = decibels

### 040 Prohibited Noise.

- (1) General Prohibition. Unless otherwise specified, no person or thing shall make noise exceeding the maximum permissible noise levels required by this chapter.
- (2) Recurrent or Continuous Noise.
  - (a) For receiving properties within a Class A Environmental Designation for Noise Abatement (EDNA), noise from the recurrent or continuous use or operation of stationary equipment or appliances shall not be perceptible by a person without the aid of amplifying instruments, at any point of any boundary line of the receiving property. This subsection applies whether the noise is generated within or outside a Class A EDNA if the receiving property is within a Class A EDNA. Commercial equipment, including emergency generators, shall comply with this subsection. Measures shall be taken to reduce noise, such as relocating, enclosing or screening the noise source, limiting the hours of operation, or other similar measures.

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- (b) This subsection shall not apply to nonresidential emergency generators that existed on or before December 24, 1998. New or replacement nonresidential emergency generators shall comply with this subsection.
  - (c) This subsection shall not apply to sounds listed in 050, Exceptions, or any sound that is less than a 45 dBA noise level between 7:01 a.m. and 10:00 p.m. or 35 dBA noise level between 10:01 p.m. and 7:00 a.m. This subsection also shall not apply to manufacturing or industrial uses that existed on or before December 24, 1998.
- (3) Specific Prohibitions. The following are examples of activities declared to be loud, excessively noisy and in violation of this section:
- (a) The use of any fixed or mobile device or loudspeaker outside a building for commercial advertising purposes or for the purposes of attracting attention to any performance, show, or sale or display of merchandise, where the sound may be heard from any public street, park, or public place. Nothing in this section is intended to prohibit incidental sounds emanating from a sports, entertainment, or public event or ice cream vending vehicles.
  - (b) The sale of anything by outcry within an area of the City zoned primarily for residential uses.
  - (c) The owning or keeping of any animal which causes a noise disturbance by frequent or habitual howling, barking, or other noise making. This section also applies to all private or public facilities, including any animal pounds and kennels that hold or treat animals.
  - (d) The repair, modification or testing of any motor vehicle, off-road motor vehicle, motorized watercraft in or near a residential use district in such a manner as to cause a noise disturbance or violate the provisions of this chapter.
  - (e) The operation of any loudspeaker or other source of sound in a place of indoor public entertainment which exceeds 85 dBA at any point normally occupied by a person, without a conspicuous and legible sign located outside near the entrance which states:

### Warning!

Sound Level Inside May Cause Permanent Hearing Impairment

- (f) The creation of unnecessary or unusually loud noises within the vicinity of a school, hospital, nursing home, court of law, or other areas where quiet is necessary to achieve the objective of this chapter.

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## **Exceptions.**

The following are exceptions to the maximum permitted noise levels established in RCDG 30:

- (1) Exceptions at Any Time. The following sounds are exceptions to the provisions of this chapter at any time:
  - (a) The maximum permitted noise levels as established in 040 may be exceeded by five dBA for a total of 15 minutes in any one-hour period, or 10 dBA for a total of five minutes in any one-hour period, or 15 dBA for a total of 1.5 minutes in any one-hour period.
  - (b) Sounds originating from aircraft in flight and sounds that originate at airports which are directly related to flight operations.
  - (c) Sounds created by railroad trains engaged in interstate commerce or mass transit.
  - (d) Sounds created by warning devices not operating continuously for more than five minutes.
  - (e) Sounds created by bells, chimes, and carillons.
  - (f) Sounds created by safety and protective devices where noise suppressions would defeat the intent of the device or is not economically feasible.
  - (g) Sounds originating from City-approved parades and other public events.
  - (h) Sounds caused by natural phenomena and unamplified human voices.
  - (i) Sounds caused by motor vehicles when regulated by Chapter 173-62 WAC.
  - (j) Sounds from the startup of refinery boilers.
  - (k) Sounds caused by emergency equipment and work necessary in the interests of law enforcement or for the safety, health or welfare of the community. Nothing in this section shall be construed to permit law enforcement, ambulance, fire or other emergency personnel to make excessive noise in the performance of their duties when such noise is clearly unnecessary.
  - (l) Sounds caused by residential generators when operating in an emergency. Commercial generators are not included as an exception.
  - (m) Sounds created by motor vehicles, licensed or unlicensed, when operated off public highways except when such sounds are received in residential zones (Class A EDNA).

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- (2) Daytime Exceptions. The following may exceed the maximum permissible noise levels of 040 on weekdays between the hours of 7:00 a.m. and 10:00 p.m., and on weekends between the hours of 9:00 a.m. and 10:00 p.m.
  - (a) Sounds originating from residential property related to temporary projects for the maintenance or repair of homes, grounds and appurtenances.
  - (b) Sounds from new construction, additions or remodels of single-family homes and accessory structures in residential zones (Class A) caused by the homeowner. Sounds from construction by hired contractors shall be limited to the hours specified in subsection (5)(b) of this section.
  - (c) Sounds created by the discharge of firearms at authorized shooting ranges.
  - (d) Sounds created by motorized watercraft.
  - (e) Sounds from the installation or repair of essential utility services.
  - (f) Sounds originating from forest harvesting and silvicultural activities.
  - (g) Sounds created by blasting.
- (3) Twenty-Four-Hour Residential Zone Exceptions. Within residential zones (Class A EDNA), the following activities are subject to the daytime maximum permissible noise levels at all times (24 hours a day):
  - (a) Sounds created by existing electrical substations and stationary equipment used to convey water, wastewater or natural gas by a utility.
  - (b) Sounds created by sources in industrial and manufacturing districts which, over the previous three years, have consistently operated in excess of 15 hours per day as demonstrated routine or as a consequence of process necessity. Changes in working hours or activity, which would increase the noise allowed under this exception, require the approval of the Administrator.
- (4) Manufacturing Park Land Rezoned to Residential Zone Exceptions. Manufacturing Park land that is rezoned to a residential zone on or after the effective date of the ordinance codified in this section shall be considered Class C receiving property and Class A source property for the purpose of calculating maximum permissible noise levels. Interior portions (residences and associated indoor space) of a residential development shall be required to achieve noise attenuation to 45 dBA through insulation, site design, or other methods.
- (5) Construction Noise Exceptions.

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- (a) Sounds from temporary construction may exceed the maximum permissible noise levels between the hours of 7:00 a.m. and 10:00 p.m. unless it impacts residential zones (Class A EDNA).
- (b) Construction noise that impacts residential zones (Class A EDNA) has the following restricted hours unless it is for single-family home repair, maintenance or construction and meets the requirements set forth in subsections (2)(a) and (2)(b) of this section:

Monday through Friday:	7:00 a.m. to 7:00 p.m.
Saturdays:	9:00 a.m. to 6:00 p.m.
Sunday or Legal Holiday:	Prohibited

(Legal holidays for enforcement of this subsection shall be limited to New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving, the day after Thanksgiving and Christmas.)

- (c) The point of measurement shall be at the property boundary of the receiving property or anywhere within the receiving property.
- (d) The Administrator, or the Technical Committee for street and utility projects, may authorize expanded hours of temporary construction if at least one of the following criteria is met:
  - (i) Construction is necessary to accommodate transportation improvements or other work within the right-of-way, or construction on schools and essential government facilities which cannot be undertaken during exempt hours. In considering expanded hours for street and utility projects, the Technical Committee shall evaluate the project duration, potential noise impacts, traffic and safety impacts and cost of the project with and without expanded hours. If expanded hours are necessary, the Director of Public Works shall cause a public notice board to be posted to inform neighboring property owners of the scope and duration of the construction project. The size, shape, and other characteristics of the public notice board shall be reasonably calculated to provide the required notice, as determined by the Public Works Director
  - (ii) Emergency work.
  - (iii) Sounds caused by construction will not exceed the maximum permissible noise levels contained in 040.

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- (1) This section applies to all residential short plats, subdivisions, and multi-family projects (five or more units) proposed after December 24, 1998.
- (2) For all residential short plats, subdivisions, and multi-family projects proposed within 100 feet of an arterial or state highway that has an existing or projected traffic volume of 20,000 or more average daily trips, the applicant shall include sound attenuation measures in the site design and/or the design and construction plans of the structure(s).
- (3) The applicant shall demonstrate that proposed measures provide sound attenuation and that the methods go beyond standard building construction practices. Measures that reduce noise at the site, such as building location, design, berms, noise attenuating fences, and barriers, to help mitigate outside noise exposure shall be used whenever practical in preference to measures which only protect interior spaces. Noise walls over eight feet in height shall be avoided unless all other mitigation measures are determined infeasible and impractical. Blank walls shall be prohibited. The Technical Committee shall approve appropriate methods for reducing noise levels.

### **070 Arterial Improvement Requirements.**

- (1) This section applies to arterial and state highway improvement projects in residential zones (Class A EDNA).
- (2) In residential zones (Class A EDNA), arterial and state highway improvement projects, not including the addition of walkways, bicycle lanes and minor widening (such as turn lanes), must include a noise analysis of the affected environment by a qualified noise consultant if:
  - (a) The existing or projected noise level exceeds 67 dBA peak noise hour Leq; or
  - (b) The projected exterior noise level as a result of the project is estimated to increase beyond 67 dBA peak noise hour Leq; or
  - (c) The exterior noise level is expected to increase by five dBA or more as a result of the project.
- (3) The point of exterior noise level measurement for purposes of this section will be five feet above existing grade anywhere along a parallel line 60 feet on either side of the arterial centerline.
- (4) Noise mitigation measures intended to reduce exterior noise levels to 67 dBA peak noise hour Leq or lower shall be determined by the Technical Committee. Measures such as location, design, setbacks, earthen berms, landscaping and berm/wall barriers shall be used instead of tall, linear, blank walls. Use of noise walls shall be limited or avoided if other feasible measures are available. If noise walls are determined to be necessary, they shall be located to maximize effectiveness and designed to avoid a long, linear, blank appearance. Noise walls shall be limited to the lowest effective height, combined with

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earthen berms where feasible, screened by landscaping, modulated, and constructed with durable and decorative materials. If additional funding is necessary, the Technical Committee shall make a recommendation to the City Council. The criteria for evaluating noise mitigation measures are:

- (a) Whether reasonable noise mitigation measures are available which will reduce exterior noise levels by five dBA or more; and
- (b) Whether the financial impacts of noise mitigation measures are not disproportionate to the overall cost of the arterial improvement project; and
- (c) Whether benefited property owners contribute to the cost of mitigation, provided that this factor only applies if existing exterior noise levels exceed 67 dBA peak noise hour Leq; and
- (d) Whether the benefited community is supportive of noise mitigation measures.

### **080 Measurement of Sound.**

- (1) **Sound Level Meter.** If the measurement of sound is made with a sound level meter, the instrument shall be in good operating condition and shall meet the requirements for a Type I or Type II instrument, as described in the current American National Standards Institute Specifications.
- (2) **Location of Measurement.** Unless otherwise specified, the point of measurement shall be at the property boundary of the receiving property or anywhere within it.
- (3) **More Than One EDNA.** Where a receiving property lies within more than one EDNA, the maximum permissible noise level shall be determined by the most sensitive EDNA.
- (4) **Technical Corrections.** When the location, distance or technique prescribed in this chapter for measurement of sound is impractical or would yield misleading or inaccurate results, measurements shall be taken at other locations or distances using appropriate correction factors, as specified by the Administrator or a qualified noise consultant.

### **90 Testing of Generators.**

Testing of emergency generators shall be limited to after 8:00 a.m. and no later than 8:00 p.m.